



Provincial Coal Policy / Regulation:

Risks to Alberta

Presentation to Alberta Coal Policy
Committee

Submitted by the Nordegg
Sustainability Coalition

August 2021

Risks to Clearwater County

Risks to Health: human and environment

- Contaminants/Tailing ponds
- Groundwater
- Water Quality
- Water withdrawals
- Species at Risk
- Watershed disruption – drainage diversions, rock drains, and pit lakes
- Increased linear development/habitat fragmentation/biodiversity loss
- Reclamation
- Cumulative effects: forestry + oil and gas + recreation + coal
- Construction and management of employee camps – sewage, disturbance to soil, social problems
- Chemical spills

Risks to Local Economic Development

- Commitments made
- Existing private and County investments in Nordegg
- Coal leases adjacent to development nodes
- Threats to long term sustainable development
- Loss of tourism revenue and investment
- Loss of investment in development nodes
- Impact on local businesses and future business prospects
- Cost burden of coal infrastructure development and management
- Long term future liability of abandoned mines

Risks to Leadership Reputation

- Public opinion
- Are we being gamed?
- Opaque AER practices

History of Coal: Not much boom, lots of bust

Long history of repeated cycles of opening and closing of coal mines

- Luscar, Grande Cache, Obed Ridge (Hinton), Tumbler Ridge (BC), Cheviot
- Nordegg

"I remember my mother and my grandmother telling horror stories of the coal dust being in everything, and how hard it was to clean or cook. My dad did not work underground, but it still took a long time for his hands to look clean. Mom told me that on some days, my baby blanket would have black dust on it in my crib."

(a remembrance of Kathy Feys, Nordegg)

Facts:

- Metallurgical coal is used to make iron/steel
- Production of steel accounts for 7-9% of the world's greenhouse gases.
- China is the largest importer of metallurgical coal
- Australia has been the largest exporter to China but is now under a politically motivated embargo
- No guarantee that China would not embargo coal from Canada.

Future of coal

- Thermal coal is being eliminated. USA mining will likely cease by 2035
- Metallurgical coal is rapidly being replaced by disruptive "Green Steel" technologies

Background

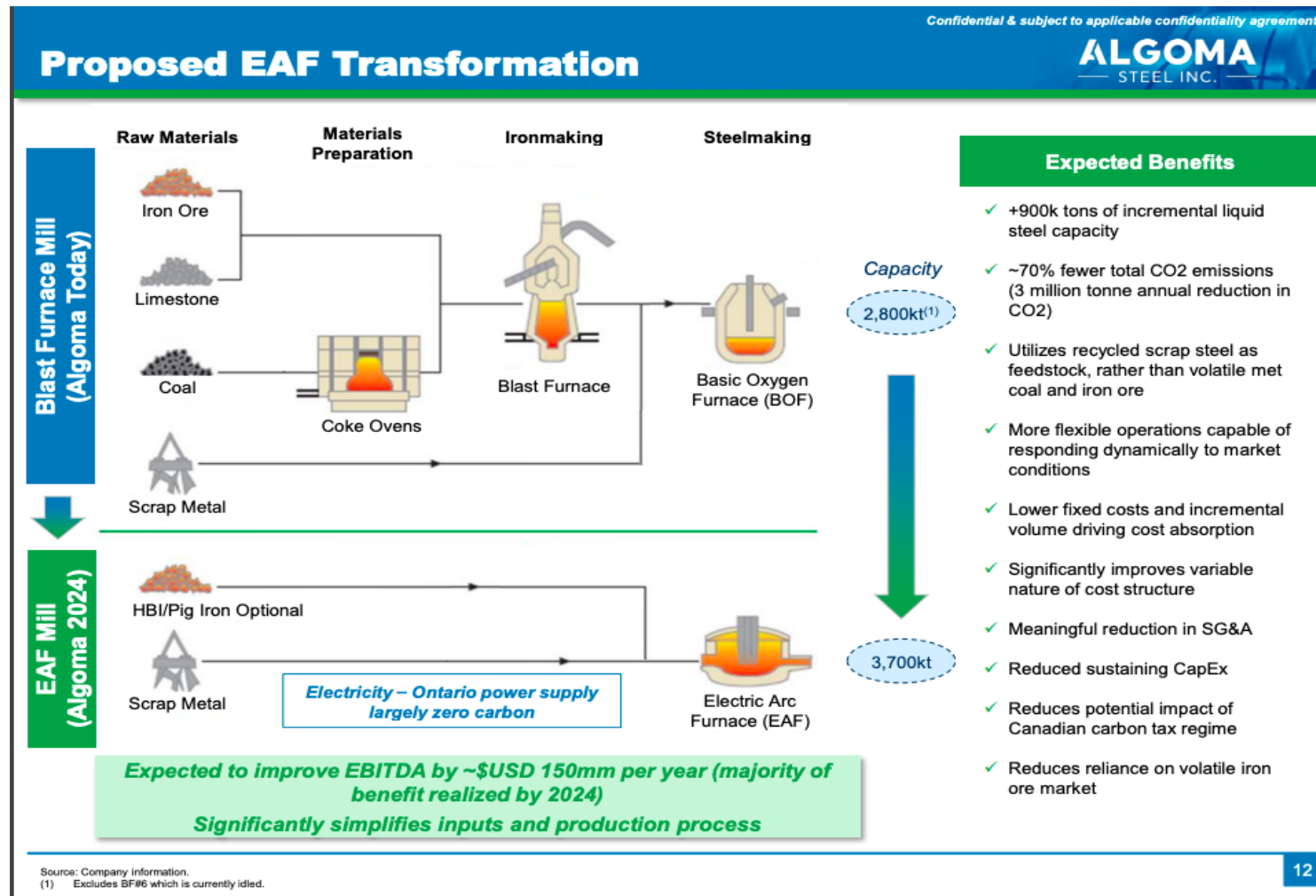
Aggressive, Widespread, and Successful Development of Disruptive Green Steel Technologies

* those that are currently producing

- Molten Oxide Electrolysis (MOE)
 - Boston Metal, USA *
- Hydrogen Reduction/ Electric Arc Furnace
 - ArcelorMittal, Luxembourg *
 - ThyssenKrupp, Germany *
 - SSAB, Sweden
 - Siemens VAI Metals Technologies, Germany
 - Mitsubishi Hitachi Metals Machinery, Japan
 - Nippon Steel, Japan
 - POSCO, South Korea
- China is working on undisclosed technologies to make it self-sufficient
 - They **will** eliminate the need to import metallurgic coal



What's happening in Canada?



Algoma Steel Inc., in Sault Ste. Marie, Ont., is getting up to \$420 million in federal funding to help phase out coal-fired steel-making processes.

The federal government has also announced \$400 million for a project at ArcelorMittal Dofasco that the company says will help it cut carbon emissions by more than half.

ArcelorMittal Dofasco says the new furnaces could later be used for a transition to hydrogen fuel, a process that can produce net-zero emissions — depending on the provenance of the hydrogen and electricity used — and leaves only water vapour as a by-product.

Risks to Health: Human and Environment

Contaminants

- Selenium levels directly downstream of four coal mines operating in the Luscar/Cadomin area were as high as $47.1 \mu\text{g/L}$ from 1998 to 2000. The highest level recorded above the mines was $2.2 \mu\text{g/L}$ (AENV 2000). CCME water quality guidelines for the protection of aquatic life is $1 \mu\text{g/L}$.
 - In humans, chronic exposure (including downstream water users) to high selenium concentrations can cause nausea, fatigue, skin lesions, and neurological disorders
 - In fish, Selenium either kills juvenile fish or cause major birth defects.
- Selenium is a bio-accumulator, increasing in concentration as it goes up the food chain.
- The closed Mountain Park mine tailings seepage has increased down stream levels of sodium, barium, potassium and strontium.
- Existing mines (Cheviot EIA decision document) have fluctuating and increased levels of organic carbon, iron, silica, total suspended solids, nitrates and sodium below them.



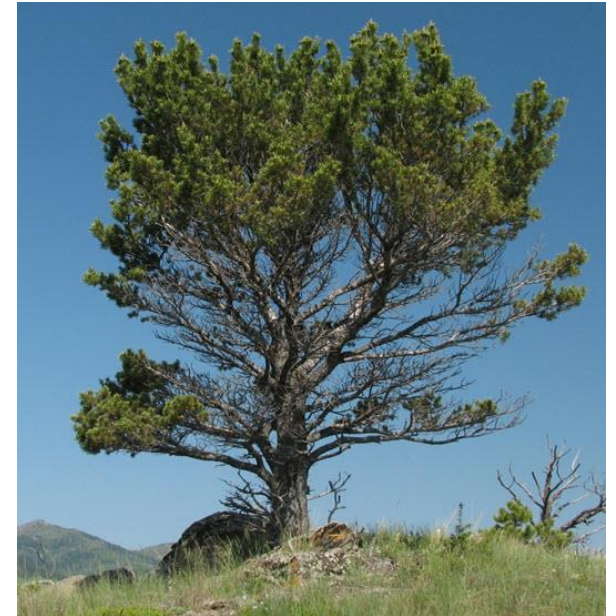
The risk is real: Coal Mine Tailing Pond Failure **Obed Mountain, October 2013**

- Following the collapse of a tailings dam, up to one billion liters of wastewater flooded into the nearby Athabasca River, in what may be the largest coal slurry spill in Canadian history.
- There were immediate spikes in arsenic, metals, and carcinogenic polycyclic aromatic hydrocarbons (PAHs) in the river.
- In the first month after the spill, water quality tests revealed the presence of metals and chemicals such as cadmium, arsenic, manganese, lead, mercury, and PAHs in excess of limits for consumption or aquatic life along the first 40 km (25 mi) of the Athabasca River. Mercury, for instance, was found to be nine times higher than normal, while PAHs were at levels four times higher than the Canadian standard for potable water.

Risks to Health: Human and Environment

Species at-risk

- There are over 50 sensitive species (flora and fauna) in the North Saskatchewan Watershed that could be impacted by new mines.
- Well known species at risk include:
 - Grizzly Bear
 - Harlequin Duck
 - Bull Trout
 - Limber Pine



Bull Trout Critical Habitat – *Species at Risk Act* (Canada) SOR/2021-31



Most if not all Coal Leases within Clearwater County are within the area defined as Bull Trout Critical Habitat. Coal mines would greatly impact the critical habitat through the physical disruption of water courses and the release of deleterious substances such as selenium.

The two most advanced projects in Clearwater County – Aries (Ram Coal) and Blackstone (Valory) would directly impact Bull Trout.

Aries is adjacent to the largest spawning population in the North Saskatchewan River: Fall Creek. This section of the Ram River also has high groundwater inflows which could become contaminated.

Blackstone includes the headwaters of the Tay River and smaller tributaries to the Clearwater River. The Clearwater contains several important Bull Trout populations. Spawning Bull Trout were documented moving into the Tay River in the fall of 2020.

Risks to Local Economic Development: commitments made

Vision of Clearwater County

*Where the
adventurous can
renew their spirit
through experiencing
the challenge of
water, wildlife, and
wilderness unique to
the Clearwater
Region.*

A vision that commits to
encourage investment in *long-
term economic, environmental
and social sustainability*

Existing supports to Clearwater's vision

The David Thompson Highway is Central Alberta's gateway to the Rocky Mountains.

- In 2016, campers accounted for over 140,000 visitors to the region.
- That number has increased almost 10-fold over the last four years and is set to keep increasing.

Threats of coal development to Clearwater's vision

Tourism operators count on this region's ecological biodiversity, intact land base, clean headwaters and pristine landscapes.

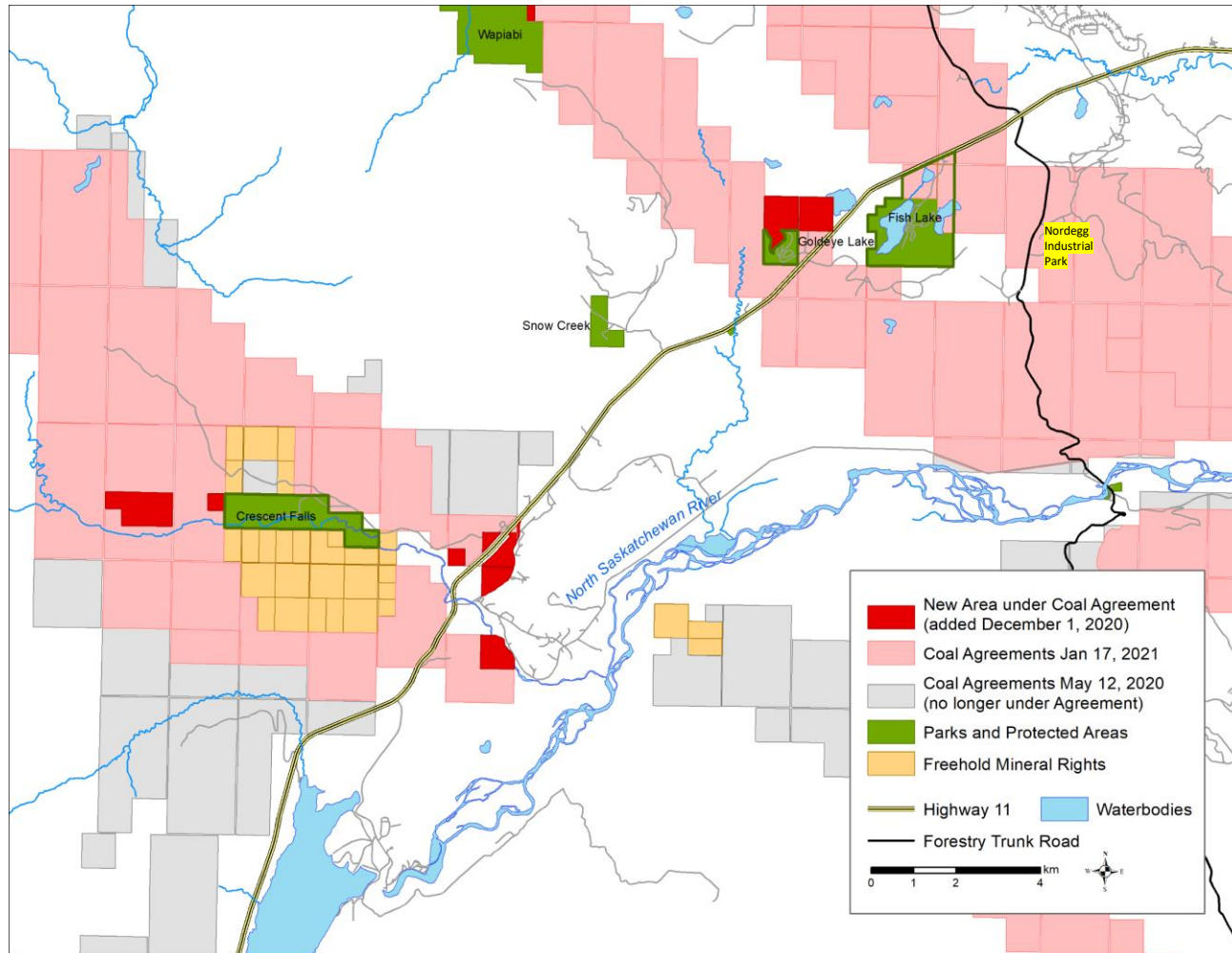
- Existing tourism businesses will struggle to provide tourism services now that coal leases have been granted in areas where they operate.
- It will be a struggle to bring new tourism businesses to the area once coal exploration proceeds and the area is disturbed with drilling and road building.

Risks to Local Economic Development: impact on local businesses and future business prospects

Local Community Impact

- Nordegg businesses are orientated to providing services to recreationists, government and industrial workers. Clearwater County through the David Thompson Country tourism strategy has supported this.
- No one wants to recreate in an industrial coal mine landscape. Current recreation operators could be negatively impacted. Future recreation development would evaporate.
- Owners of developed and undeveloped lots are unsure what to do. This was not what they signed up for!

Risks to Local Economic Development: coal leases adjacent to development nodes

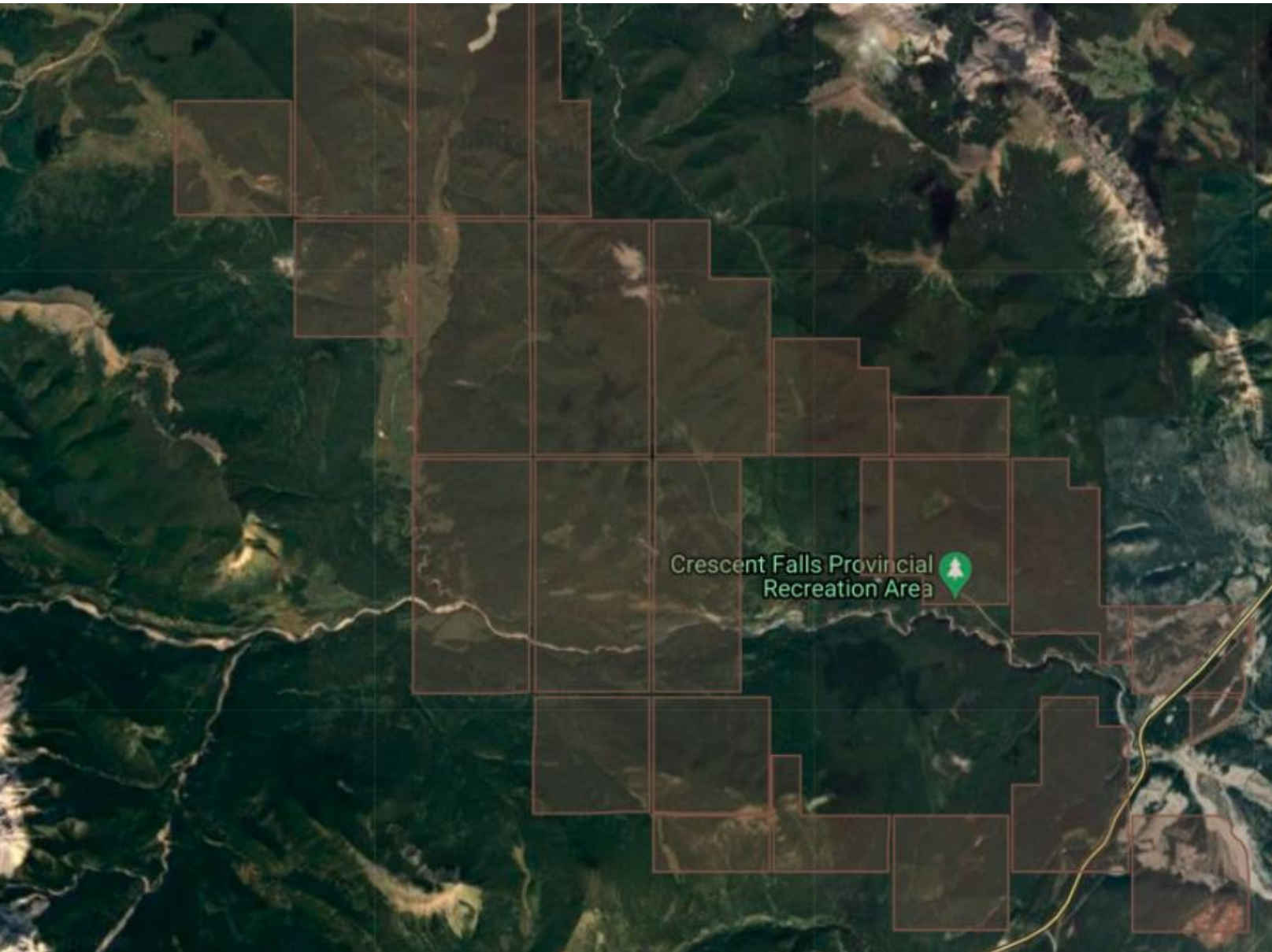


Nordegg and Shunda Goldeye leases owned by Oros Coal part Capital Investment Partners (a consortium of Australian coal companies)

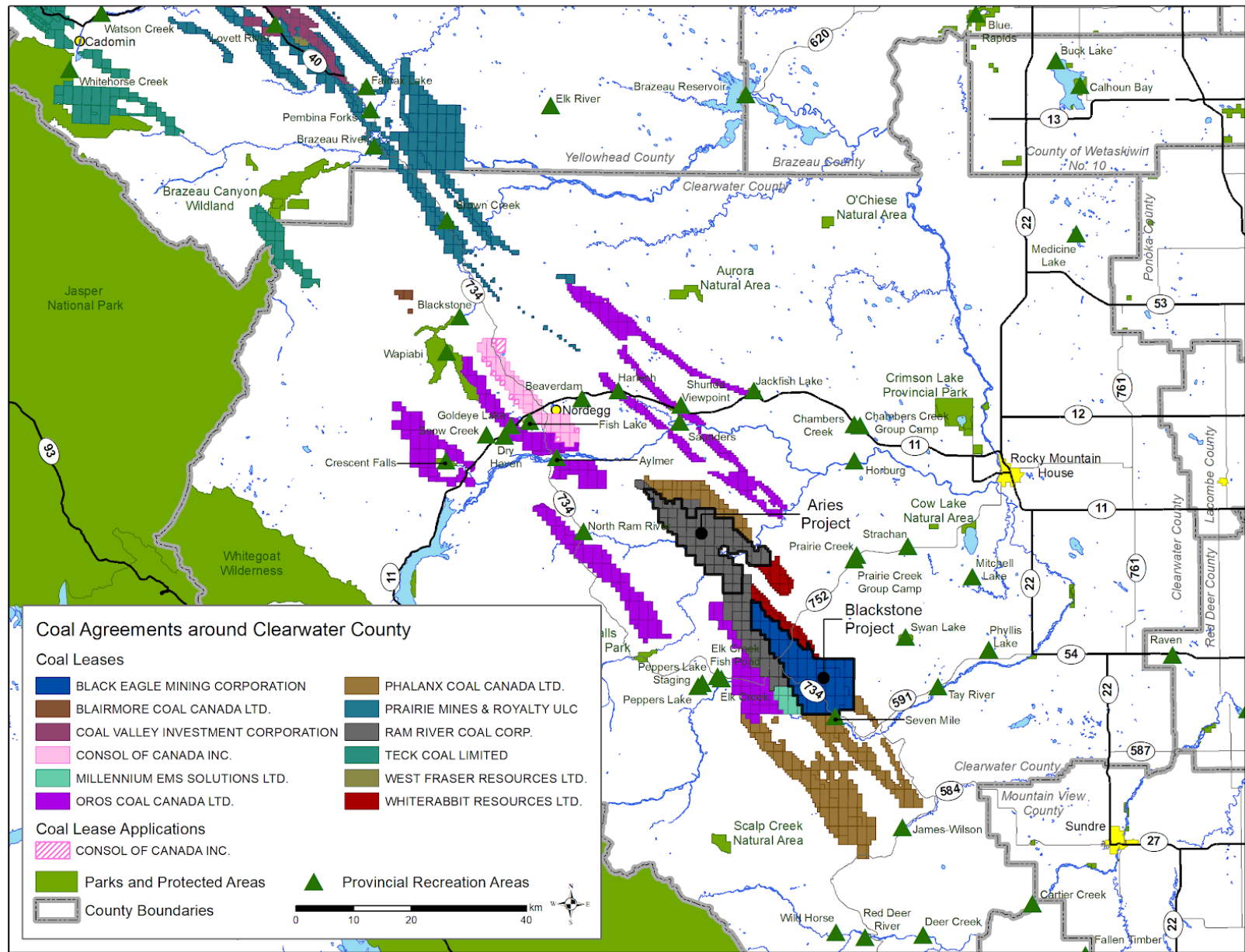


Risks to Economic Development: coal leases adjacent to development nodes

Bighorn River
leases owned by Oros Coal,
part of Capital Investment
Partners (a consortium of
Australian coal companies)

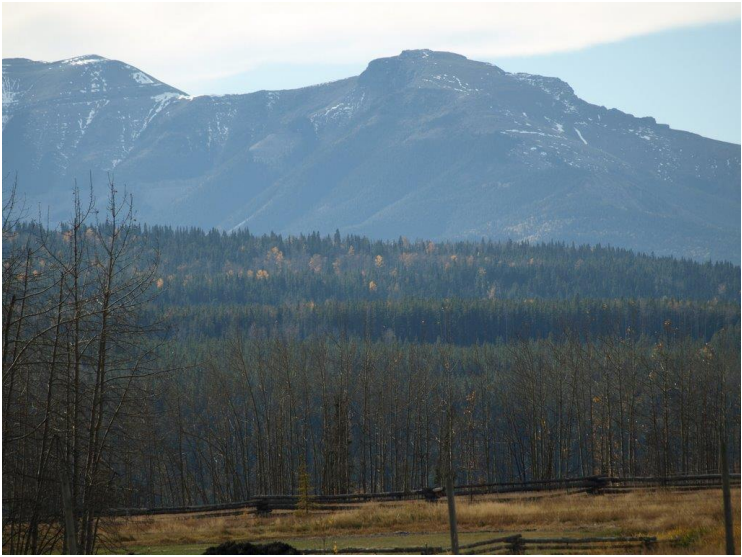


S. Legault



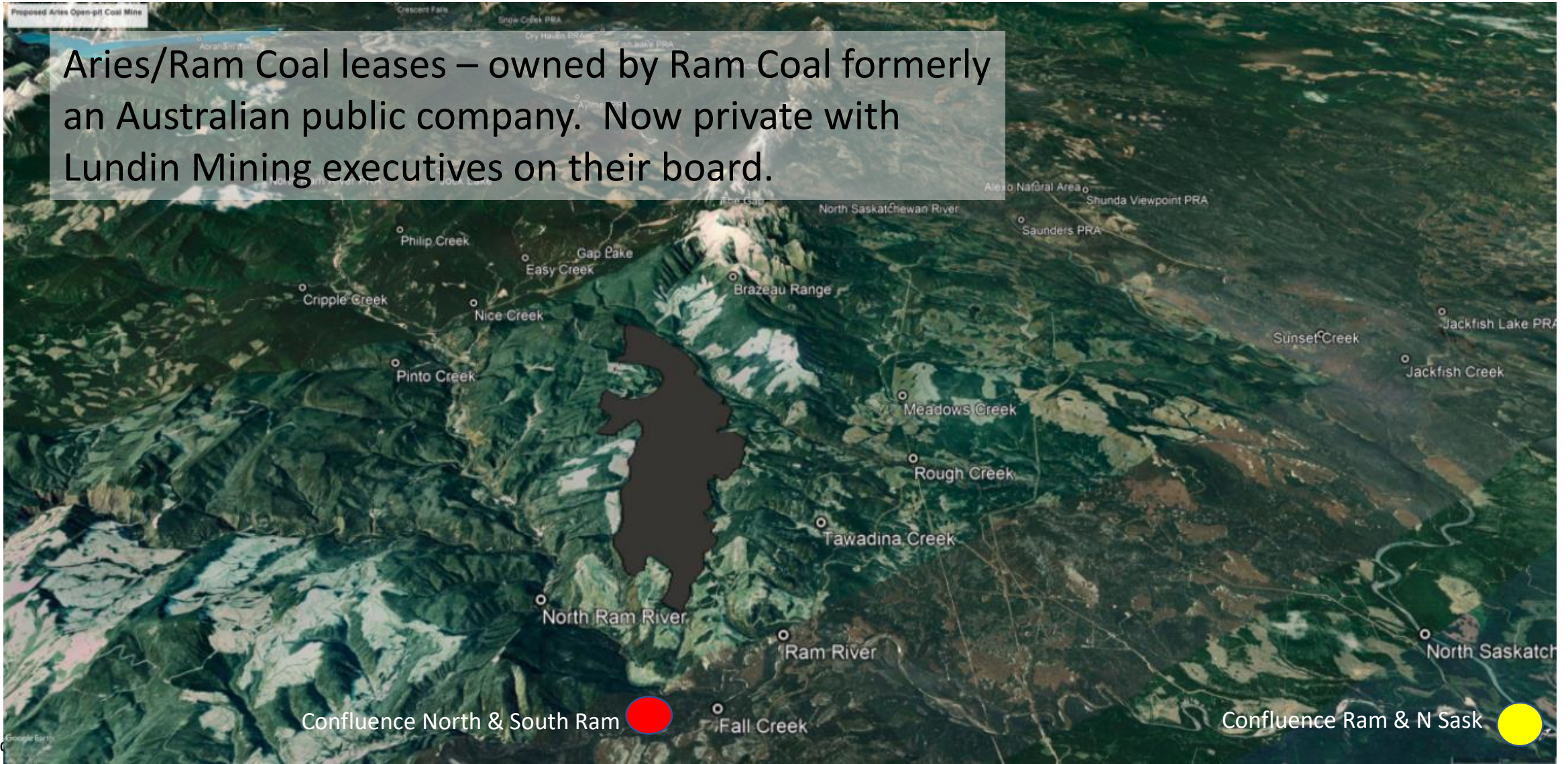
Risks to Economic Development: coal leases adjacent to development nodes

Alexo Saunders leases
owned by Oros Coal
part of Capital
Investment Partners (a
consortium of
Australian coal
companies)



Risks to Local Economic Development: threats to long term sustainable development

Aries/Ram Coal leases – owned by Ram Coal formerly an Australian public company. Now private with Lundin Mining executives on their board.

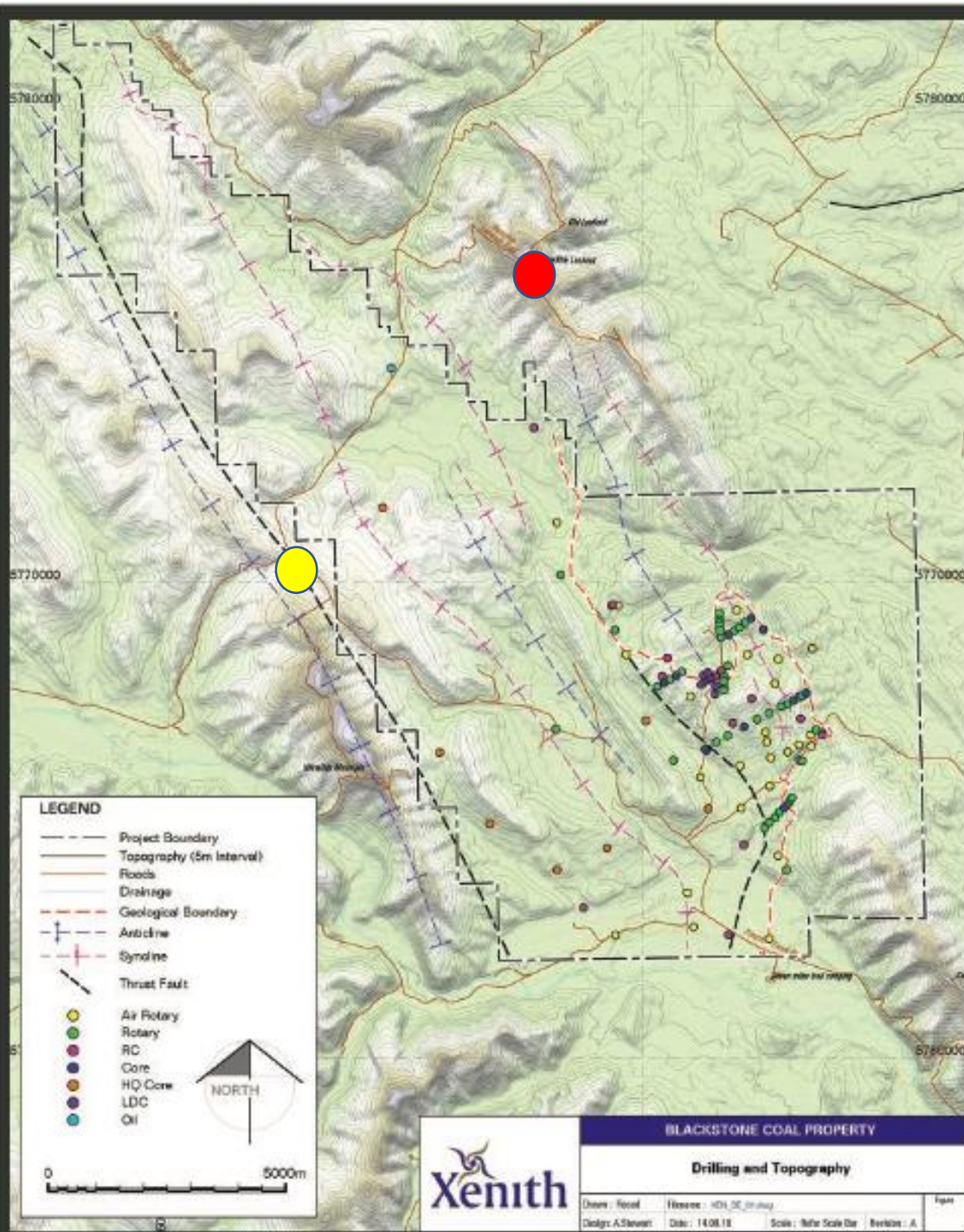


Risks to Local Economic Development: threats to long term sustainable development

Blackstone Coal leases owned by
Valory Resources (an Australian
coal company)

● Baseline Lookout

● Prairie Creek – Trunk Road Junction



Economic Externalities

- In economics, an **externality** is a cost or benefit that is imposed on a third party who did not agree to incur that cost or benefit (Wikipedia).
- Polluting water with Selenium and other contaminants is a negative externality. Society would incur extra costs in water treatment, contaminant clean-up, and health costs.
- Extra train traffic through central Alberta communities such as Sylvan Lake is also a negative externality – increased emergency response times, disrupts businesses and traffic flow, unproductive waiting at train crossings, increased probability of a train – vehicle, pedestrian incident.
- Loss of future recreational and tourism potential is a negative externality.

Other probable externalities:

Roads – is this why the province is proposing to twin the Highway 11?

- Other roads will also need to be built or upgraded.

Railways

- Long way from Nordegg to Rocky rail head.
- New line from Aries (Ram) or Blackstone projects to Strachan rail head.

Relocation of existing infrastructure.

Questions:

- Who is paying for their construction and maintenance? Probably all Albertans.

Did we learn nothing from the taxpayer money gambled on Keystone XL?

How many more trains between Strachan and Red Deer?

Back of a napkin calculation

- Ram coal estimates 2-3 m ton coal a year.
- The math
 - $2,000,000 \text{ ton} / 100 \text{ ton per rail car} = 20,000 \text{ rail cars}$
 - $20,000 / 100 \text{ cars per train} = 200 \text{ trains}$
- 100 car train is estimated to be 5,200 ft or 1585 m long.
- Coal rail cars are generally not enclosed.

Are we being gamed?

What Are the Implications of Reinstating the 1976 *Coal Development Policy*? (Nigel Bankes, LL.M. Chair of Natural Resources Law. University of Calgary):

- “In sum, Minister Savage claims that the 1976 Policy has been reinstated, but a lot of activity has occurred between June 1, 2020 and February 8, 2021, and none of that has been rolled back.”
- “This is not reinstatement; it is *reinstatement-minus what has happened since June 1.*”
- **Timeline:**
 - 2018-2019 - persistent claims of insufficient consultation on Bighorn wildland park by MLA Nixon.
 - April 2019 Coal Association of Canada reported that it had met with the UCP.
 - June 2019 Coal Association of Canada met with Minister Nixon
 - Minister Nixon and Minister Fir provided Valory Resources (Blackstone project) with letters of support in October 2019.
 - 1976 Coal Policy rescinded Friday before May long weekend, 2020.
 - Significant new Coal Leases granted in June 2020 in Category 2 lands.
 - No transparency and no Public Consultation or Notification of coal development in the Eastern Slopes.
- **Question:** Can Alberta Environment and Parks and their Minister Nixon, having actively supported Australian coal companies, now provide a fair independent unfettered review of these coal projects?
- **Regarding reviews:** The Alberta government often has a narrow and thus flawed definition of who has standing during various regulatory processes – you must be ‘directly affected’. This language is open to interpretation and can significantly reduce who can file a ‘statement of concern’ and participate in the decisions made on behalf of Albertans

Reinstatement is not complete until
there is a rollback of new leases and exploration approvals
Issued between June 1, 2020 and February 8, 2021



LETTERS OF SUPPORT



ALBERTA
ECONOMIC DEVELOPMENT, TRADE AND TOURISM

*Office of the Minister
MLA, Calgary-Prison*

OCT 29 2019

AR 76493

Mr. Vaughan Wishart
Executive Chairman
Valory Resources Inc.
vaughan.wishart@valoryresources.com

Dear Mr. Wishart,

It was a great pleasure to speak with you on Friday October 11, 2019 and to learn about Valory Resource's exciting plans in Alberta. I am very happy to hear that you will be moving forward with your plans to invest in our province and relocating your headquarters to Alberta.

I appreciated learning about your exciting project. My message remains the same - Alberta is open for business. Our government has committed to sound and successful measures to make Alberta the best place in North America to do business, including cutting red tape by one-third, and reducing the corporate tax rate by a third over the next four years. This will make Alberta one of the most tax competitive business jurisdictions in North America.

I look forward to hearing from you on the progress of your project. Please continue to work with our Invest Alberta branch, and do not hesitate to contact me if there is anything I can do to help in the completion of your mining project.

Sincerely,




Tanya Fir
Minister of Economic Development, Trade and Tourism

cc: Honourable Jason Kenney
Premier of Alberta

Dane McCoy, EVP, Millenium EMS
dmccoy@mems.ca

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ALBERTA
ENVIRONMENT AND PARKS

*Office of the Minister
Government House Leader
MLA, Banff-Rocky Mountain House-Sandwich*

102742

DEC 05 2019

Vaughan Wishart
Executive Chairman
Valory Resources Inc.
vaughan.wishart@valoryresources.com

Dear Vaughan Wishart:

Thank you for your follow-up email to our October 11, 2019, meeting regarding Valory Resources Inc.'s proposed metallurgical coal mining project. I was pleased to hear that Valory Resources Inc. will be investing in Alberta.


The Government of Alberta is committed to the responsible development of Alberta's resources while attracting new investment and creating jobs across the province. This includes efforts to streamline policy and processes to bring greater certainty and stability to our investment climate and make Alberta open for business.

I wish you all the best in moving forward with Valory Resources Inc.'s regulatory requirements. For more information, please contact the Alberta Energy Regulator at 1-855-297-8311, or email inquiries@aer.ca.

Thank you again for advising me of the Valory Resources Inc.'s proposed investment and head office relocation to Alberta. I am confident that Alberta's competitive advantage and investment opportunities will continue to serve investors, and Albertans, well.

Season's Greetings

Sincerely,



Jason Nixon
Minister

325 Legislature Building, 10800 97 Avenue, Edmonton, Alberta T5K 2B6 Canada Telephone 780-427-2391 Fax 780-422-6259

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In 2018, Alberta tourism saw a total of:

- \$8.2 billion in expenditures
- 35.2 million person-visits
- Alberta recorded a growth of 11% and 4% in-person visits and expenditures from the international market.

There is unlimited tourism and growth potential for Nordegg under county's goal to be Alberta's fastest growing mountain resort community.

- County could co-manage Bighorn Country with the province, local recreation providers and residents.
- Nordegg could become **the** 'provincial' hub for all all-season outdoor activities such as hiking, snow shoeing, sightseeing, photography (i.e bubbles), OHVs and mountain bikes; however, it must be managed for these activities.
- More tourism services (coffee shops, art galleries, groceries) need to be encouraged in Nordegg.

In conclusion:
Lets choose sustainable economic development



The Government of Alberta needs to:

Say “NO!” to
coal

The Alberta Government can Say “NO!” to coal by:

1. Concluding that the Eastern Slopes have higher long-term value in tourism, recreation, and environmental terms than ANY coal development.
2. Concluding that the principles behind Peter Lougheed’s 1976 Coal Policy are not out of the date. Let’s prohibit coal from all Zone 2 lands.
3. Cleaning up the coal lease situation.
 - Cancel coal leases granted after the coal policy was rescinded without consultation.
 - Do not renew older coal leases adjacent to Nordegg that may expire in 2022.
 - Rationalize coal leases with current land uses (eg. the Nordegg Industrial Park has a coal lease on it).
4. Reclaiming existing mines to what the landscape actually was.
 - Re-establish previous bio-diversity, habitat types and watercourse.
5. Making transparent and accessible all AER practices.
 - Applications should be advertised in the same manner as *Water Act* approvals.
 - Do not limit citizens filing ‘Statements of Concern’ to these applications.
 - Create user friendly database of applications and approvals on the internet
6. Practicing consideration and transparency of all economic externalities.
7. Always choosing transparency and full consultation.



Say “NO!”
to coal